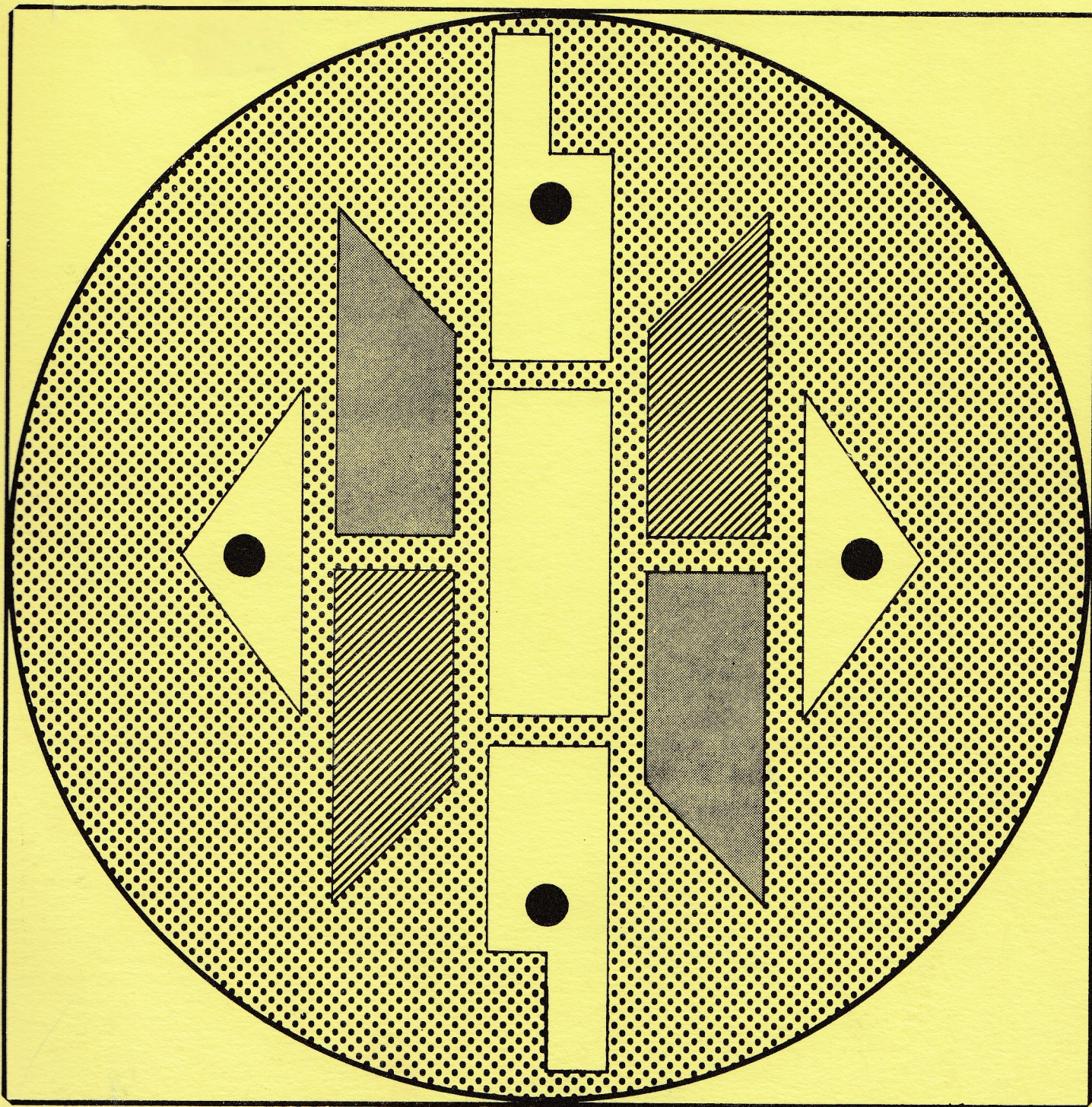


MANUAL
FOR USE
WITH THE
LABANOTATION - IBM SELECTRIC®
TYPEWRITER ELEMENT



INSTRUCTION MANUAL

FOR USE WITH THE

LABANOTATION – IBM SELECTRIC®

TYPEWRITER ELEMENT

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DANCE NOTATION BUREAU
505 EIGHTH AVENUE (at 35th St.) • NEW YORK, N.Y. 10018

AN APPRECIATION

The growth and translation of a language from that used by the hand scribe to the mechanical language used in printing, is never a simple task. It is particularly difficult when the language must be more than merely descriptive. It must be precise and as measurable as a metronome.

The transition of Labanotation from calligraphy to the IBM typewriter has taken a number of years and has involved invaluable contributions of several singular people.

Lucy Venable - Muriel Topaz - Earl Ubell - Jo Floyd

Lucy Venable and Muriel Topaz are among the few masters of the language. Their understanding of the structural grammar and of the practical needs of the language to express and to define in absolute terms, has made the entire project possible.

The Bureau is particularly fortunate for the enduring interest and support of Mr. Earl Ubell. It has been his fertile mind, keen insights and technical knowledge, which have provided us with invaluable answers to crucial questions. He has opened doors, and continues to help us expand our vision beyond the view from our own vantage points.

Miss Floyd has in addition to her contribution to the development, written this manual of instruction. Without her expertise and gift of mind, this project would not have been brought to its successful fruition at this time.

The Bureau is both impressed and appreciative of the understanding, assistance, and the very particular skills offered to us by Mr. William Simpson of International Business Machines, Lexington, Kentucky.

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DEFINITIONS OF THE SYMBOLS
ON L/N-IBM BALL

DEFINITIONS OF THE SYMBOLS ON IBM-L/N BALL

For complete keyboard layout in diagram form, see section of this manual entitled KEYBOARD LAYOUT DIAGRAMS FOR IBM-L/N BALL.

Symbol definitions given here are in order as they appear on the typewriter keyboard in rows from top to bottom (Rows A, B, C, D). Symbols are listed in order from left to right within each row. The upper case symbol is given first for each key, followed by the lower case symbol for the same key.

Only the most obvious or major use for each symbol is given here in the definition. For instructions for other uses for each symbol, and for combinations of keyboard symbols with still other meanings, see the section of this manual entitled SPECIAL INSTRUCTIONS FOR SYMBOLS ON IBM-L/N BALL.

SYMBOL DEFINITIONS

LC = Lower Case

UC = Upper Case

ROW A, KEYS 1-12:

UC-1A	Black Dot (centered)	•	Black dot, centered when typed. Use as indicator of middle level in one square long direction symbols.
LC-1A	Head Symbol	◌	Head symbol when used alone.
UC-2A	Left Accent Mark	◌◌	Unstressed accent mark for use on left side of staff. For stressed accent, symbol must be hand inked.
LC-2A	Right Accent Mark	◌◌	Unstressed accent mark for use on right side of staff. For stressed accent, symbol must be hand inked.
UC-3A	Left Shoulder	◌◌	Left shoulder when typed alone; use with UC-10B for left wrist.
LC-3A	Right Shoulder	◌◌	Right shoulder when typed alone; use with LC-10B for right wrist.

SYMBOL DEFINITIONS

UC-4A	Pin or Tack Point (Left)	'	Pin or tack point for 1/4 left or 3/4 right.
LC-4A	Pin or Tack Point (Right)	,	Pin or tack point for 1/4 right or 3/4 left.
UC-5A	Tack Head For Forward or Back	'	Tack head for full or 1/2 turns.
LC-5A	Tack Head For Left or Right	-	Tack head for 1/4 left or right tacks or 3/4 right or left tacks.
UC-6A	Tack Head For 45 Degree Tacks	✓	Tack head to be used for tacks indicating 1/8 right, 7/8 left, 5/8 right, 3/8 left (45 degree angles from the vertical).
LC-6A	Tack Head For 45 Degree Tacks	∨	Tack head to be used for tacks indicating 3/8 right, 5/8 left, 7/8 right, 1/8 left (45 degree angles from the vertical).
UC-7A	Lateral Contraction Symbol	▷	Symbol for lateral contraction (closing in, joining, adducting).
LC-7A	Lateral Extension Symbol	◁	Symbol for lateral extension (spreading, separating, abducting).
UC-8A	Centered Circle (Inked)	•	Centered circle (inked) to be used alone as center of gravity symbol. Also may be used with LC-4D as pelvis symbol.
LC-8A	Centered Circle (Uninked)	◦	Centered circle (uninked) to be used as chest symbol with LC-4D.
UC-9A	Very Narrow Sign	※	When used alone, symbol for very short, very narrow, very small, very close to center.
LC-9A	Narrow Sign	×	When used alone, symbol for short, narrow, small, close to center. Used with LC-4D for waist.

SYMBOL DEFINITIONS

UC-10A	Shoulders	÷	Alone for both shoulders. Use with LC-4D for shoulder girdle.
LC-10A	Space Hold Sign	◇	Alone as space hold sign. Use with UC-1A for spot hold sign.
UC-11A	Duration Line	—	Light centered line for duration; also to be used outside staff as path sign.
LC-11A	Staff Line	—	Heavy staff line; types on right side of square.
UC-12A	Pin or Tack Point (Back)	-	Pin or tack point for 1/2 turns.
LC-12A	Bottom Closing Line		Bottom of direction symbol; types on the bottom of the square.

ROW B, KEYS 1-11:

UC-1B	Staple to Left	⌞	Staple types to left side of square.
LC-1B	Staple to Right	⌟	Staple types to right side of square.
UC-2B	Very Wide Symbol	≍	Symbol in one square for "very long, very wide, very big, very far from center".
LC-2B	Wide Symbol	≎	Symbol in one square for "long, wide, big, far from center".
UC-3B	Hold Sign Over Two Columns	°	Hold sign placed to type centered over staff line (LC-11A). This centers it over two supports at once.
LC-3B	"Idiot Symbol"	™	A special symbol to indicate low level; if the usual blacked-in indicator is desired, it must be done by hand.
UC-4B	45 Degree Right Diagonal	↘	45 degree diagonal line to be used as top and/or bottom of circular path to the right, outside of staff.

SYMBOL DEFINITIONS

LC-4B	45 Degree Left Diagonal	/	45 degree diagonal line to be used as top and/or bottom of circular path to the left, outside of staff.
UC-5B	Hand or Foot Area Closed Bottom	⊥	Hand or foot base of area sign.
LC-5B	Hand or Foot Area Closed Top	⊏	Hand or foot area sign.
UC-6B	Pin or Tack Point For 45 Degrees	↖	Pin or tack point for 3/8 left or 5/8 right.
LC-6B	Pin or Tack Point For 45 Degrees	/	Pin or tack point for 3/8 right or 5/8 left.
UC-7B	Pin or Tack Point for 45 Degrees	/	Pin or tack point for 1/8 left or 7/8 right.
LC-7B	Pin or Tack Point For 45 Degrees	↘	Pin or tack point for 1/8 right or 7/8 left.
UC-8B	Short Closing Line (Left)	'	Closing line for chimneys. Also junction closing between body of symbol (forward or backward) and chimney.
LC-8B	Short Closing Line (Right)	:	Closing line for chimneys. Also junction closing between body of symbol (forward or backward) and chimney.
UC-9B	Left Side Direction Symbol	Δ	One-square symbol for left side direction
LC-9B	Right Side Direction Symbol	▽	One-square symbol for right side direction.

SYMBOL DEFINITIONS

UC-10B	Left Elbow	⌋	Left elbow when typed alone; use with UC-3A for left wrist.
LC-10B	Right Elbow	⌋	Right elbow symbol when used alone; use with LC-3A for right wrist.
UC-11B	Body of Direction Symbol (High)	⌋	Body of direction symbols in high level.
LC-11B	Body of Direction Symbol	⌋	Body of direction symbol; use for middle or low level symbols.

ROW C, KEYS 1-11:

UC-1C	Left Backward Direction Symbol	⌋	One-square backward direction symbol for left side of staff.
LC-1C	Right Backward Direction Symbol	⌋	One-square backward direction symbol for right side of staff.
UC-2C	Left Forward Direction	⌋	One-square forward direction symbol for left side of staff.
LC-2C	Right Forward Direction Symbol	⌋	One-square forward direction symbol for right side of staff.
UC-3C	Angle to Back Right	⌋	Angle to back right, for use in forming long side direction symbols, diagonals, butterflies.
LC-3C	Angle to Back Left	⌋	Angle to back left, for use in forming long side direction symbols, diagonals, butterflies.
UC-4C	Angle to Forward Right	⌋	Angle to forward right, for use in forming long side direction symbols, diagonals, butterflies.
LC-4C	Angle to Forward Left	⌋	Angle to forward left, for use in forming long side direction symbols, diagonals, butterflies.

SYMBOL DEFINITIONS

UC-5C	Knee Joint Sign	+	Knee joint sign when used alone. Use with LC-5C (hip) to form ankle joint sign.
LC-5C	Hip Joint Sign	+	Hip joint sign when used alone. Also forms ankle joint sign with UC-5C (knee).
UC-6C	Toe Hook For Right Support	↘	Toe hook when used on right support.
LC-6C	Toe Hook For Left Support	↙	Toe hook when used on left support.
UC-7C	Closed Left Chimney	⇐	Closed chimney for the left side of a forward direction symbol.
LC-7C	Closed Right Chimney	⇒	Closed chimney for the right side of a forward direction symbol.
UC-8C	Heel Hook For Right Support	↘	Heel hook when used on right support.
LC-8C	Heel Hook For Left Support	↙	Heel hook when used on left support.
UC-9C	Double Line		Heavy double line for entrances and exits on staff. Types on the top of the square.
LC-9C	Top Closing Line		Top closing line for direction symbols which are the width of a staff column.
UC-10C	On-Line Black Dot	.	Black dot centered between two squares. Use for middle level dot in symbols two or more squares long; also as pin head in path signs.
LC-10C	Count Tick		Tick mark for a count on staff line.
UC-11C	White Dot	°	Head of white pins; also dot with LC-5B for back of hand sign.
LC-11C	Release Sign	°	Release sign to be used within or outside staff.

SYMBOL DEFINITIONS

ROW D, KEYS 1-10:

UC-1D	Pivot Left	◻	One-square long left pivot sign, to be used over one support or outside the staff.
LC-1D	Pivot Right	◻	One-square long right pivot sign, to be used over one support or outside the staff.
UC-2D	Open Chimney Left	=	Unclosed chimney extender for left side of forward or backward symbol.
LC-2D	Open Chimney Right	=	Unclosed chimney extender for right side of forward or backward symbol.
UC-3D	Body Cross of Axes	+	One-square sign for use both within the staff for single body parts, and for the staff as a whole.
LC-3D	Torso	⊞	Whole torso sign in one square.
UC-4D	Foot Sign	⊞	Foot sign in one square.
LC-4D	Open Square	□	Area sign. May be used with body parts for body areas, or outside the staff with pins for facings.
UC-5D	Left "K" Sign	⋈	"K" sign for fold over left surface.
LC-5D	Right "K" Sign	⋈	"K" sign for fold over right surface.
UC-6D	Back "K" Sign	⋈	"K" sign for fold over back surface.
LC-6D	Front "K" Sign	⋈	"K" sign for fold over front surface.
UC-7D	Left Hand	☞	Left hand symbol in one square.
LC-7D	Right Hand	☞	Right hand symbol in one square.
UC-8D	Left Caret	^	Caret to left of line of staff; at bottom of square as typed.
LC-8D	Right Caret	^	Caret to right of line of staff; at bottom of square as typed.

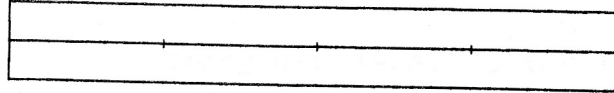
SYMBOL DEFINITIONS

UC-9D	Tick Mark for Area Surface	-	Tick mark to be used with area to indicate particular surface.
LC-9D	Pin or Tack Point	-	Point for pin or tack. Symbol as typed points from center of square upward.
UC-10D	Hold Sign	o	Off-center in square as typed, to be used for one support.
LC-10D	Bar Line		Heavy bar line; to the bottom of the square as typed.

SPECIAL INSTRUCTIONS FOR SYMBOLS
ON L/N-IBM BALL

THE LABANOTATION STAFF AND TIME INTERVALS

The vertical three-line staff on which Labanotation is written is "built" to the size and time signature required, using the basic instructions given here for an example. The example shown is the "standard size" staff for a meter division of 4/4.



LC-10D

*

backspace

roll platen up 1 space

LC-10D

*

repeat from * to * twice

roll platen down 2 spaces

backspace

**

LC-11A

repeat until there are 8 of this symbol

LC-10C

backspace

**

repeat from ** to ** for number of counts desired

backspace to start of staff

roll platen down 2 spaces

LC-11A

repeat for length of staff (will be read as left staff line)

backspace to start of staff

roll platen up 4 spaces

LC-11A

repeat for length of staff (will be read as right staff line)

LC-10D

backspace

roll platen down 1 space

repeat *** to *** twice

LC-10D

DIRECTION AND LEVEL ON THE IBM-L/N BALL

Because of the breakdown of most Labanotation symbols into pieces on the IBM-L/N Ball, most Direction Symbols are "built" by combining the necessary pieces into whole symbols of whatever length may be required.

The only complete Direction Symbols (those that are complete by hitting one key only) are the ones shown and defined below. Note the following definitions, as used throughout this manual:

UC = Upper Case.	A,B,C,D = Row numbers on typewriter, from top to bottom.
LC = Lower Case.	
1-12 = Key numbers, from left to right on each Row.	

ONE SQUARE LONG SYMBOLS

◻ = Right Backward LC-1C	◻ = Left Backward UC-1C
◻ = Right Forward LC-2C	◻ = Left Forward UC-2C
▽ = Right Side LC-9B	△ = Left Side UC-9B

All other direction symbols must be "built" by combining other keys and backspaces.

LEVELS FOR ONE-SQUARE SYMBOLS

High Level: All one-square symbols must be striped by hand.

Middle Level: Backspace to center of symbol and hit UC-1A.

Low Level: All one-square symbols must be inked in by hand.

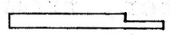
DIRECTION AND LEVEL ON THE IBM-L/N BALL

SYMBOLS MORE THAN ONE SQUARE LONG

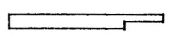
Following is a list of the Labanotation Direction Symbols, in the three possible Levels, that can be "built" with the IBM-L/N Ball, with the instructions for doing so.

Instructions for building the basic symbols are given first, followed by changes or additions required for the three Levels.

FORWARD DIRECTION SYMBOLS

 = Forward (to be used on Left Side of Staff).

LC-12A
backspace
LC-11B
repeat for desired length of body of symbol
UC-8B
backspace
LC-2D
repeat for 1/4 to 1/3 length of body of symbol
LC-8B; OR close chimney with LC-7C

 = Forward (to be used on Right Side of Staff).

LC-12A
backspace
LC-11B
repeat for desired length of body of symbol
LC-8B
backspace
UC-2A
repeat for 1/4 to 1/3 length of body of symbol
UC-8B; OR close chimney with UC-7C

LEVELS

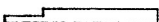
High Level: Replace LC-11B with UC-11B in basic instructions above.

Middle Level: Backspace to center of symbol; hit UC-1A

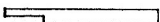
Low Level: Backspace to beginning of body of symbol and repeat LC-3B as many times as needed.

DIRECTION AND LEVEL ON THE IBM-L/N BALL

BACKWARD DIRECTION SYMBOLS

 = Backward (to be used on Left Side of Staff).

LC-8B
backspace
LC-2D
repeat for 1/4 to 1/3 length of body of symbol
UC-8B
backspace
LC-11B
repeat for desired length of body of symbol
LC-12A

 = Backward (to be used on Right Side of Staff).

UC-8B
backspace
UC-2D
repeat for 1/4 to 1/3 length of body of symbol
LC-8B
backspace
LC-11B
repeat for desired length of body of symbol
LC-12A

LEVELS

High Level: Replace LC-11B with UC-11B in basic instructions above.

Middle Level: Backspace to center of symbol; hit UC-1A.

Low Level: Backspace to beginning of body of symbol and repeat LC-3B as many times as needed.

DIRECTION AND LEVEL ON THE IBM-L/N BALL

SIDE DIRECTION SYMBOLS

△ = Left Side (symbol 2 squares long).

UC-3C

UC-4C

▽ = Right Side (symbol 2 squares long).

LC-3C

LC-4C

▱ = Left Side (symbol more than 2 squares long).

UC-3C

LC-11B

repeat for desired length of body of symbol

UC-4C

▭ = Right Side (symbol more than 2 squares long).

LC-3C

LC-11B

repeat for desired length of body of symbol

LC-4C

LEVELS

High Level: All 1 square and 2 square long symbols must be striped by hand.

For symbols 3 squares or more long, replace LC-11B with UC-11B.

Middle Level: Backspace to center of symbol; hit UC-1A.

Low Level: All 1 square and 2 square long symbols must be inked in by hand.

For symbols 3 squares or more long, backspace to beginning of body of symbol and repeat LC-3B as many times as needed.

DIRECTION AND LEVEL ON THE IBM-L/N BALL

DIAGONAL DIRECTION SYMBOLS

 = Left Forward Diagonal

LC-12A

backspace

LC-11B

repeat for desired length of body of symbol

LC-4C

 = Right Forward Diagonal

LC-12A

backspace

LC-11B

repeat for desired length of body of symbol

UC-4C

 = Left Backward Diagonal

LC-3C

LC-11B

repeat for desired length of body of symbol

LC-12A

 = Right Backward Diagonal

UC-3C

LC-11B

repeat for desired length of body of symbol

LC-12A

LEVELS

High Level: Replace LC-11B with UC-11B in basic instructions.

Middle Level: Backspace to center of symbol; hit UC-1A.

Low Level: Backspace to beginning of body of symbol and repeat LC-3B as many times as needed.

BODY PARTS ON THE IBM-L/N BALL

Some Body Part Symbols can be typed directly, i.e., the entire symbol for the body part is on one typewriter key. However, as a general rule, most Body Part Symbols are "built" by combining pieces of symbols, as is done in typing Direction Symbols.

Below is a list of the body parts, along with instructions for typing each Body Part Symbol.

BODY AREA SIGNS

□ = Basic Sign for an Area	☒ = Chest (Rib Cage)
LC-4D	LC-4D backspace LC-8A
☐ = Area of Head	
LC-4D backspace LC-1A	☒ = Waist LC-4D backspace LC-9A
☒ = Shoulder Section	
LC-4D backspace UC-10A	☐ = Pelvis LC-4D backspace UC-8A
☒ = Whole Torso	
LC-3D	☒☐ = Unit of Foot to Chest LC-12A backspace LC-11B LC-11B LC-12A backspace 3 spaces UC-4D LC-8A
☒☐ = Unit of Knee to Head	
LC-12A backspace LC-11B LC-11B LC-12A backspace 3 spaces UC-5C LC-1A	

BODY PARTS ON THE IBM-L/N BALL

SURFACES OF BODY AREAS

☐ = Face

LC-4D

backspace

LC-1A

backspace

UC-9D

☐ = Front of Chest

LC-4D

backspace

LC-8A

backspace

UC-9D

☐ = Back of Chest

LC-9D

LC-4D

backspace

LC-8A

Other similar Surfaces of Body Areas may be typed in this manner. Some will require tick marks be hand inked.

JOINT SIGNS FOR THE ARMS

┘ = Left Shoulder

UC-3A

┘ = Right Shoulder

LC-3A

┘ = Left Elbow

UC-10B

┘ = Right Elbow

LC-10B

┘ = Left Wrist

UC-3A

backspace

UC-10B

┘ = Right Wrist

LC-3A

backspace

LC-10B

☐ = Left Hand

UC-7D

☐ = Right Hand

LC-7D

☐ = Both Shoulders

UC-10A

BODY PARTS ON THE IBM-L/N BALL

FINGERS

To type the finger symbol for left or right side, type the hand symbol concerned, then add the extra slanted line by hand.

Similarly, to indicate particular parts of fingers, the finger symbol is first done (as described above), then the dots required must be hand inked.

JOINT SIGNS FOR THE LEGS

- + = Either Hip
LC-5C
- ++ = Either Knee
UC-5C
- ## = Either Ankle
LC-5C
backspace
UC-5C
- ### = Either Foot
UC-4D

TOES

To type the toe symbol for either foot (undifferentiated symbol), type the foot symbol, then add the extra cross line.

Similarly, to indicate particular parts of toes, the toe symbol is first done (as described above), then the dots required must be hand inked.

Symbols for right and left toes must be done by hand.

BODY PARTS ON THE IBM-L/N BALL

SURFACES AND EDGES OF HANDS AND FEET

☐ = Area of Hand or Foot LC-5B	☐ = Area of Base of Hand or Foot UC-5B
☐ = Palm, Sole of Foot LC-5B backspace UC-1A	☐ = Under Side, Sole of Heel UC-5B backspace UC-1A
☐ = Back of Hand, Top of Foot LC-5B backspace UC-11C	☐ = Upper Side, Instep UC-5B backspace UC-11C
☐ = Left Thumb or Big Toe Edge of Left Foot LC-5B add tick mark by hand	☐ = Left Thumb or Big Toe Edge of Base of Left Foot UC-5B add tick mark by hand
☐ = Right Thumb or Big Toe Edge of Right Foot LC-5B add tick mark by hand	☐ = Right Thumb or Big Toe Edge of Base of Right Foot UC-5B add tick mark by hand
☐ = Tip of Fingers or Tip of Toes LC-5B backspace UC-9D	☐ = Tip of Heel LC-9D UC-5B

PIVOT TURNS ON THE IBM-L/N BALL

As in the case of the Direction Symbols two or more squares long, the Pivot Turn Symbols are "built" by combining the necessary pieces of symbols into whole symbols of whatever length may be required.

The only complete Pivot Turn Symbols (those that are completed by hitting one key only) are the ones shown and defined below, i.e., Pivot Turn Symbols one square long.

In order to show amount of turn in any Pivot Turn Symbol, the pin to indicate degree of turn must be added to the "built" Pivot Turn Symbol. To do this, see the section of this manual entitled PINS AND TACKS ON THE IBM-L/N BALL.

ONE SQUARE LONG PIVOT TURN SYMBOLS

▣ = Pivot Turn Right

LC-1D; use for turns
on one support.

▢ = Pivot Turn Left

UC-1D; use for turns
on one support.

PIVOT TURNS TWO OR MORE SQUARES LONG OVER ONE SUPPORT

Pivot Turn Symbols more than one square long must be "built"; the following instructions refer to symbols over one support (i.e., one square or staff column wide).

▤ = Pivot Turn Right

LC-3C

LC-11B

repeat for desired length
of body of symbol

UC-4C

▥ = Pivot Turn Left

UC-3C

LC-11B

repeat for desired length
of body of symbol

LC-4C

PIVOT TURNS ON THE IBM-L/N BALL

PIVOT TURNS OVER TWO SUPPORTS

Pivot Turn Symbols over two supports must be "built", no matter how long they are. The following instructions are for the basic symbols.



= Pivot Turn Right

(Starting at top left corner of symbol)

UC-4B

roll platen down 1 space

UC-4B

roll platen up 2 spaces

backspace 2 spaces

LC-11A

repeat for desired length of body of symbol

roll platen down 1 space

UC-4B

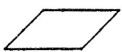
roll platen down 1 space

UC-4B

backspace to beginning of symbol

LC-11A

repeat for required length of body of symbol



= Pivot Turn Left

(Starting at bottom left corner of symbol)

LC-4B

roll platen up 1 space

LC-4B

roll platen up 1 space

LC-11A

repeat for desired length of body of symbol

roll platen down 1 space

backspace 1 space

LC-4B

roll platen down 1 space

backspace 2 spaces

LC-4B

backspace to beginning of symbol

LC-11A

repeat for required length of body of symbol

PATH SIGNS ON THE IBM-L/N BALL

All Path Signs are "built" by combining slanted and/or straight line symbols on the IBM-L/N Ball so as to indicate the direction and duration of the path.

Here is a list of the general types of Path Signs, with instructions for "building" each type:

GENERAL PATH SIGNS

Any Path:



UC-6C
LC-8C
backspace
UC-11A
repeat for length desired
backspace
UC-6C
LC-8C

A Straight Path:



LC-12A
backspace
UC-11A
repeat for length desired
LC-12A

Passive Straight Path:



LC-12A
backspace
LC-5A
repeat for length desired
LC-12A

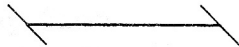
PATH SIGNS ON THE IBM-L/N BALL

Horizontal Circular
Path Right or Left:



LC-4B
roll platen down 1 space
LC-4B
backspace 2 spaces
UC-6B
roll platen up 1 space
LC-7B
backspace
roll platen down 1 space
LC-11A
repeat for length desired
LC-4B
roll platen up 1 space
backspace 2 spaces
LC-4B
LC-7B
backspace 2 spaces
roll platen down 1 space
UC-6B

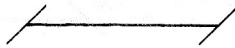
Circular Path to Right:



UC-4B
roll platen up 1 space
UC-4B
backspace
roll platen down 1 space
LC-11A
repeat for length desired
backspace
UC-4B
roll platen up 1 space
UC-4B

PATH SIGNS ON THE IBM-L/N BALL

Circular Path to Left:



LC-4B
roll platen down 1 space
LC-4B
backspace
LC-11A
repeat for length desired
LC-4B
backspace 2 spaces
roll platen up 1 space
LC-4B

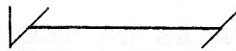
Revolving to the Right
On a Straight Path:



LC-10D
backspace
roll platen down 1 space
LC-10D
backspace
UC-4B
roll platen up 1 space
UC-4B
roll platen down 1 space
backspace
LC-11A
repeat for length desired
backspace
UC-4B
roll platen up 1 space
UC-4B
LC-10D
backspace
roll platen down 1 space
LC-10D

PATH SIGNS ON THE IBM-L/N BALL

Revolving to the Left
On a Straight Path:



LC-10D
backspace
roll platen down 1 space
LC-10D
backspace
roll platen up 1 space
LC-4B
roll platen down 1 space
LC-4B
backspace
LC-11A
repeat for length desired
LC-4B
LC-10D
backspace
roll platen up 1 space
LC-10D
backspace 3 spaces
LC-4B

PINS AND TACKS ON THE IBM-L/N BALL

In order to conserve space on the new IBM-L/N Ball, as many symbols as possible have been "taken apart" and placed on the Ball in pieces. This allows many combinations of parts to be made; thus, more symbols may be "built" than there are spaces for whole symbols on the Ball.

There are no pins or tacks, as such, on the IBM-L/N Ball. Instead, each pin or tack is "built" by typing the pin or tack head, then backspacing and typing the point of the pin or tack.

There will be a tiny gap between the pin or tack head and the point, on some of the pins and tacks. These may be corrected by a tiny inked-in line if it is disturbing to the reader.

Here is a list of the possible pins and tacks that can be "built", with the instructions for doing so.

WHITE PINS

!	UC-11C; backspace; UC-4A
;	UC-11C; backspace; LC-4A
-	UC-11C; backspace; UC-12A
-	UC-11C; backspace; LC-9D
\	UC-11C; backspace; LC-7B
/	UC-11C; backspace; UC-7B
/	UC-11C; backspace; LC-6B
\	UC-11C; backspace; UC-6B

BLACK PINS

!	UC-1A; backspace; UC-4A
;	UC-1A; backspace; LC-4A
-	UC-1A; backspace; UC-12A
-	UC-1A; backspace; LC-9D
\	UC-1A; backspace; LC-7B
/	UC-1A; backspace; UC-7B
/	UC-1A; backspace; LC-6B
\	UC-1A; backspace; UC-6B

PINS AND TACKS ON THE IBM-L/N BALL

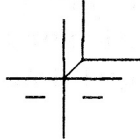
TACKS

- ⊥ LC-5A; backspace; UC-4A
- ⊥ LC-5A; backspace; LC-4A
- UC-5A; backspace; UC-12A
- ⊥ UC-5A; backspace; LC-9D
- < UC-6A; backspace; LC-7B
- ✓ LC-6A; backspace; UC-7B
- > LC-6A; backspace; LC-6B
- ✓ UC-6A; backspace; UC-6B

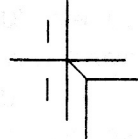
SYMBOLS FOR USE IN EFFORT NOTATION

The Effort Graph, the symbolic representation of all the Effort variables, is shown below.

EFFORT GRAPH



TURNED 90 DEGREES



The individual Effort variables, or qualities, are "built" as described below. Note that the Effort Graph and its parts are turned 90 degrees to the right for use with the Labanotation staff in typed scores.

The symbols for the ongoing Effort Flow of movement are:

FREE FLOW



LC-10D
backspace
roll platen up 1 space
LC-10D
backspace
roll platen up 1 space
LC-10D
backspace
roll platen up 1 space
UC-4B

BOUND FLOW



UC-4B
backspace
LC-10D
backspace
roll platen up 1 space
LC-10D
backspace
roll platen up 1 space
LC-10D

SYMBOLS FOR USE IN EFFORT NOTATION

The symbols for the basic Effort Qualities, taken singly, are:

IN SPACE:

INDIRECT



UC-4B
LC-11A
LC-11A
LC-11A

DIRECT



UC-4B
roll platen up 1 space
LC-10D
backspace
roll platen up 1 space
LC-10D
backspace
roll platen up 1 space
LC-10D

IN FORCE:

LIGHT



UC-4B
backspace
roll platen down 1 space
LC-11A
LC-11A
LC-11A

STRONG



LC-11A
LC-11A
LC-11A
roll platen up 1 space
UC-4B

IN TIME:

SUSTAINED



LC-10D
roll platen up 2 spaces
UC-4B

SUDDEN



roll platen up 2 spaces
LC-10D
roll platen down 2 spaces
UC-4B

KEYBOARD LAYOUT DIAGRAMS

FOR L/N-IBM BALL

KEYBOARD FINGERING REFERENCE

FOR LABANOTATION

The Labanotation-IBM Selectric typewriter element is unique in its keyboard arrangement. It consists of some whole symbols and some interchangeable parts of symbols. These parts may be combined to "build" other symbols.

In order to facilitate learning of the placement of the symbols or parts of symbols, the arrangement of the key content is shown below in two parts.

In the first chart, titled LABANOTATION KEYBOARD ARRANGEMENT, the entire contents (upper and lower cases) of each row across of the typewriter keyboard is shown. The rows are lettered A, B, C, D from the top of the keyboard. The listing of the contents starts from the top row, i.e., with Row A. This facilitates finding the grouping of the symbols and parts of symbols as they would appear when looking down on the typewriter keyboard.

In the second chart, titled EXPANDED LABANOTATION KEYBOARD ARRANGEMENT, the diagrammatic representation of the keyboard is expanded into right and left "halves", corresponding to the keys used by the right and left hands in touch typing. All symbols (upper and lower cases) are lettered by rows from top to bottom, and numbered from left to right in each row.

Thus, a key may be found on the typewriter by the code for each symbol: UC-1A is the symbol on the upper case of key number one (first on the left) of Row A (top row on the keyboard). This is the system used for reference throughout the manual in describing the "building" of all symbols.

It may be found helpful by some users of the element to make key-sized paper tabs which can be affixed to the keys. These can be marked with the symbols which appear when struck.

LABANOTATION KEYBOARD ARRANGEMENT

ROW A:

UPPER CASE:	•	^	∟	!	!	/	!	•	*	÷	—	—
LOWER CASE:	ˆ	ˆ	7	!	—	\	(	o	x	◇	—	!
	1	2	3	4	5	6	7	8	9	10	11	12

ROW B:

UPPER CASE:	ˆ	Σ	°	\	□	\	/	!	Δ	u	Σ
LOWER CASE:	ˆ	Σ	°	/	□	/	\	!	▽	n	Σ
	1	2	3	4	5	6	7	8	9	10	11

ROW C:

UPPER CASE:	⌈	⌈	∠	∠	+	∪	⊃	∪		.	.
LOWER CASE:	⌋	⌋	∠	∠	+	∪	⊃	∪		,	°
	1	2	3	4	5	6	7	8	9	10	11

ROW D:

UPPER CASE:	∇	=	+	≡	∇	∇	≡	ˆ	—	o
LOWER CASE:	∇	=	⊗	□	π	κ	≡	ˆ	—	
	1	2	3	4	5	6	7	8	9	10

EXPANDED LABANOTATION KEYBOARD ARRANGEMENT

